

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-16 (canceled).

17. (currently amended) A method for preserving configuration data during firmware modification, said method comprising:
- a) establishing a direct serial connection between a firmware device and a download computing device;
  - b) establishing a network connection between said download computing device, a web-based device administration utility on a web server and said firmware device;
  - e) uploading firmware configuration data, over said network connection, from an existing firmware structure in said firmware device to said web server using said web-based administration utility, wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure ~~by executing code that resides solely on said web-based administration utility and~~ without ~~executing code on~~ loading any software onto said firmware device;
  - d) storing said firmware configuration data on said web server;
  - e) erasing firmware, including said firmware configuration data, from said firmware device, ~~by executing code that resides solely on said web-based administration utility and without executing code on said firmware device;~~  
querying network elements to ascertain additional configuration data needed by a new firmware structure;

converting said configuration data to a format compatible with said new firmware structure using said web-based device administration utility on said web server, thereby creating converted configuration data;  
combining said additional configuration data with said converted configuration data using said web-based device administration utility on said web server;  
obtaining said new firmware structure with said web-based device administration utility on said web server.  
merging said converted configuration data and said additional configuration data with said new firmware structure using said web-based device administration utility, thereby creating a new, configured firmware structure; and  
loading said new, configured firmware structure onto said firmware device.

- ~~f) loading a new firmware structure from said download computing device to said firmware device over said direct serial connection, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device;~~
- ~~g) loading said firmware configuration data from said web server to said firmware device over said network connection, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device.~~

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (currently amended) A system for preserving configuration data during firmware modification, said system comprising:

- a) a firmware device;
- b) a download computing device;
- c) a web-based device administration utility on a web server;
- d) a direct serial connection between said firmware device and said download computing device;
- e) a network connection between said download computing device, said web-based device administration utility on a web server and said firmware device;
- f) an uploader for uploading firmware configuration data, over said network connection, from an existing firmware structure in said firmware device to said web server using said web-based administration utility, wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure without loading any software onto said firmware device, ~~by executing code that resides solely on said web-based administration utility and without executing code on said firmware device~~ and wherein said firmware configuration data is stored solely on said web server;
- g) storage, on said web server, for storing said firmware configuration data;

h) an eraser process for erasing firmware, including said firmware configuration data, from said firmware device, ~~by executing code that resides solely on said web-based administration utility and without executing code on said firmware device;~~  
a query process for querying network elements to ascertain additional configuration data needed by a new firmware structure;

a configuration converter for converting said configuration data to a format compatible with said new firmware structure wherein said configuration converter is part of said web-based device administration utility on said web server and wherein said converting results in converted configuration data;

a configuration combiner for combining said additional configuration data with said converted configuration data, wherein said configuration combiner is part of said web-based device administration utility on said web server;

wherein said web-based device administration utility on said web server obtains said new firmware structure.

a merger for merging said converted configuration data and said additional configuration data with said new firmware structure wherein said merger is part of said web-based device administration utility, thereby creating a new, configured firmware structure; and

a firmware loader for loading said new, configured firmware structure onto said firmware device.

i) ~~a firmware loader for loading a new firmware structure from said download computing device to said firmware device over said direct serial connection wherein said firmware loader performs said loading by pushing data to said~~

~~firmware device, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device;~~

~~j) a configuration loader for loading said firmware configuration data from said web server to said firmware device over said network connection wherein said configuration loader performs said loading by pushing data to said firmware device, by executing code that resides solely on said web-based administration utility and said download computing device, without executing code on said firmware device and without using memory on said firmware device.~~

23. (canceled)

24. (canceled)

25. (canceled)

26. (canceled)

27. (new) A method for preserving configuration data during firmware modification,

said method comprising:

establishing a direct serial connection between a firmware device and a download computing device;

establishing a network connection between said download computing device, a web-based device administration utility on a web server and said firmware device;

uploading firmware configuration data, over said network connection, from an existing firmware structure in said firmware device to said web server using said

web-based administration utility, wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure without loading any software onto said firmware device;

storing said firmware configuration data on said web server;

erasing firmware, including said firmware configuration data, from said firmware device;

querying network elements to ascertain additional configuration data needed by a new firmware structure;

converting said configuration data to a format compatible with said new firmware structure using said web-based device administration utility on said web server, thereby creating converted configuration data;

converting said additional configuration data to a format compatible with said new firmware structure using said web-based device administration utility on said web server, thereby creating additional converted configuration data;

combining said converted configuration data with said additional converted configuration data to create combined, converted configuration data;

obtaining said new firmware structure with said web-based device administration utility on said web server.

loading said new firmware structure from said download computing device to said firmware device over said direct serial connection without executing code on said firmware device;

loading said combined, converted configuration data from said web server to said  
firmware device over said network connection without executing code on said  
firmware device.